

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 26

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

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Ex parte KONRAD WEGENER, HANS HOFELE and SIEGHARD MULLER

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Appeal No. 2003-1275  
Application No. 09/443,456

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HEARD: OCTOBER 8, 2003

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Before ABRAMS, STAAB and BAHR, Administrative Patent Judges.  
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

Appellants originally appealed from the examiner's rejection of claims 1-30, which are all of the claims pending in this application. In the examiner's answer (Paper No. 21), however, the examiner withdrew the rejections of claims 19-22 and indicated them to be allowable (see page 3). This appeal thus involves only claims 1-18 and 23-30.

We AFFIRM-IN-PART.

### BACKGROUND

The appellants' invention relates to a system and process for forming workpieces. Further understanding of the invention may be obtained from a reading of independent claims 1 and 27 which are reproduced, infra, in the opinion section of this decision.

The examiner relied upon the following prior art references in rejecting the appealed claims:

Koser	4,043,167 <sup>1</sup>	Aug. 23, 1977
Prinz et al. (Prinz)	5,301,863	Apr. 12, 1994
Hashimoto et al. (Hashimoto) (European patent application)	615,799	Sep. 21, 1994

The following rejections are before us for review.<sup>2</sup>

- (1) Claims 1-8, 10, 17, 18, 23, 25 and 27-30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hashimoto.
- (2) Claims 1, 5-8, 10, 11, 13-17, 23, 25 and 27-30 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Prinz.

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<sup>1</sup> The examiner's citation, on page 3 of the answer, of U.S. Pat. No. 4,170,157, also issued to Koser, appears to be in error, as the rejection from which this appeal is taken (Paper No. 19, page 5) and the rejection as stated on page 4 of the answer both make clear reference to U.S. Pat. No. 4,043,167.

<sup>2</sup> The additional rejections set forth in the rejection (Paper No. 19) from which this appeal is taken have been withdrawn by the examiner (see pages 2 and 3 of the answer).

(3) Claims 24 and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hashimoto.

(4) Claims 9 and 11-16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hashimoto in view of Koser.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the Office action from which this appeal is taken and the answer (Paper Nos. 19 and 21) for the examiner's complete reasoning in support of the rejections and to the brief (Paper No. 20) for the appellants' arguments thereagainst.

#### OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

Independent claims 1 and 27 read as follows:

1. A forming system for forming workpieces, comprising a plurality of stations, at least one forming tool, and at least one machining device with a local energy feed for machining the workpieces is arranged as a separate station within the forming system.

27. A process for forming workpieces, comprising the step of machining the workpieces by at least one machining device with a local energy feed in a system cycle, and moving the at least one machining device in multiple planes.

We turn first to the rejection of claims 1-8, 10, 17, 18, 23, 25 and 27-30 as being anticipated by Hashimoto. Hashimoto discloses a laser process machine 12 disposed in front of a progressive die 3 in a press machine 1. The progressive die 3 has processing portions 5-8 for a phased processing at equal pitch P, which are adapted to perform progressive processes such as drawing, bending, punching and the like to a material 9 which is fed to the press machine 1. As discussed in columns 4 and 5 of Hashimoto, the laser head 13 of the laser process machine is adapted to move in at least two directions in a plane, including laterally to cut a forward end along direction A, as illustrated in Figure 2, and diagonally to cut forward end tapered-off portions B, as illustrated in Figure 2, as well as to cut dummy holes 15 and pilot relief holes 16, with the dummy holes spaced at intervals equal to the pitch P of movement of the material through the progressive die and the pilot relief holes being spaced at intervals matching the spacing between two adjacent pilot pins 10A of the progressive die.

Appellants do not appear to dispute that Hashimoto discloses a forming system comprising at least one forming tool or that the laser head 13 is a machining device with a local energy feed. Rather, appellants' only argument is that, since the laser head 13 is upstream of and outside the press machine 1, Hashimoto does not disclose at least one machining device with a local energy feed "within" the forming system, as called for in claim 1 (brief, page 20). We note, at the outset, that appellants have used the term "forming" sufficiently broadly to include "cutting" in addition to deep-drawing, pressing

and impressing (specification, page 1, lines 13-15). Moreover, the cuts made by the laser head 13 certainly contribute to or facilitate the forming processes performed by the progressive die of the press machine 1. Thus, in any event, we, like the examiner, consider the laser processing machine 3 and press machine 1 together to comprise a “forming system.” Consequently, the laser head 13 is “within” the forming system as called for in claim 1. This being the case, we find appellants’ argument unpersuasive and therefore sustain the rejection of claim 1 as being anticipated by Hashimoto. In that appellants’ brief presents no arguments as to the patentability of the additional claims so rejected, claims 2-8, 10, 17, 18, 23, 25 and 27-30 fall with claim 1 (see In re Young, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); In re Wood, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978)). The rejection of these claims as being anticipated by Hashimoto is thus also sustained.

We turn our attention next to the rejection of claims 24 and 26 as being unpatentable over Hashimoto. Claim 24 requires the at least one machining device to be arranged between two forming stations and claim 26 recites two or more machining stations arranged parallel to one another and operatively connected behind or in front of a common forming station. Hashimoto discloses neither arrangement and the examiner’s dismissal of these limitations as being mere obvious design choice (Paper No. 19, pages 4-5) is improper. Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the

teachings of that reference. See In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1316-17 (Fed. Cir. 2000). The fact that “the salient machining would remain unchanged regardless of the chosen placement of the device and would be contingent upon, for example, the desired number of machining operations to be performed upon a particular workpiece” as stated by the examiner (Paper No. 19. page 5) is of no moment, as this is not the test for obviousness. The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In this instance, the examiner has offered no evidence that the prior art would have suggested to one of ordinary skill in the art at the time of appellants’ invention the arrangements recited in claims 24 and 26. Based on the evidence before us, the only suggestion for modifying Hashimoto in the manner proposed by the examiner is found in the luxury of hindsight accorded one who first viewed the appellants’ disclosure. This, of course, is not a proper basis for a rejection. See In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). The rejection of claims 24 and 26 is reversed.

The examiner has rejected claims 9 and 11-16 as being unpatentable over Hashimoto in view of Koser. We, like appellants (brief, pages 23 and 24), find absolutely no suggestion in Koser’s pipe bend finishing system to incorporate any of the manipulation devices called for in these claims in Hashimoto’s system. As stated by

our reviewing court in In re Kotzab, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000):

Most if not all inventions arise from a combination of old elements. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant [citations omitted].

Koser's teaching of using a slide or swivel arm to move a trimming device such as a grinding disc or saw blade to finish the ends of a pipe bend would have provided no suggestion to use such manipulation devices for the laser head of Hashimoto. We thus shall not sustain the examiner's rejection of claims 9 and 11-16.

We turn finally to the rejection of claims 1, 5-8, 10, 11, 13-17, 23, 25 and 27-30 as being anticipated by Prinz. Prinz discloses an automated system for forming objects by the incremental buildup of layers on a work surface at a material deposition station 32 and operations on the layers at stations 62, 70, 58, 66, 56, 60, 50 and 52. Appellants appear to be arguing on page 21 of their brief that Prinz does not disclose a "forming system" (claim 1) or "process of forming" (claim 27) because material deposition is not "forming" as that term is used in the art. Even if "forming" is not considered to include material deposition steps, at least the additional operation of

shaping at the shaping station 50 would certainly appear to be a “forming process” consistent with the use of that terminology on page 2, in lines 13-15, of appellants’ specification. Thus, in our view, the examiner’s position that Prinz’s system is a “forming system” is reasonable. Further, from our viewpoint, at least the shot peener at station 56 appears to meet the definition of a having a “local energy feed” set forth on page 3 of appellants’ specification and thus is a machining device “with a local energy feed” as called for in claims 1 and 27.

Appellants further argue (brief, page 21) that Prinz does not disclose moving the at least one machining device in multiple planes as called for in claim 27. In response, the examiner points to the shaping apparatus at shaping station 50, which is disclosed as being, in a preferred embodiment, a CNC machine 51 having suitable shaping tools such as a sander, milling tool, grinder or polisher attached thereto (column 5, lines 1-5) and as passing over the complementary material shaping and contouring the complementary material surface so as to define the surface of the object being produced for that layer (column 6, lines 54-59). According to the examiner (answer, pages 6-7), it is well-known that CNC machining devices are movable in multiple planes and, further, to achieve the “shaping and contouring” referred to by Prinz, movement of the shaping machine 51 in multiple planes would inherently be required. For the following reasons, we find Prinz’s disclosure with regard to the shaping machine 51

insufficient to meet the step of moving the at least one machining device in multiple planes recited in claim 27.

First, even assuming that all CNC machines are capable of movement in multiple planes as urged by the examiner, claim 27 requires an actual step of so moving, not the mere capability of such movement. Second, without further details of the particular shape of the object, it cannot even be concluded that relative movement of the work surface and machining device in two planes is necessary. Moreover, even assuming that the shape of the object is such as to require such relative movement, Prinz discloses cooperation of the CNC machine with a rotary/tilt table (column 5, lines 7-8); thus, shaping and contouring of such a three-dimensional object could be achieved without movement of the machining device in multiple planes by movement of the work surface and complementary material in relation to the machining device. We therefore find nothing in Prinz which leads us to the conclusion that Prinz inherently discloses movement of the shaping machine in multiple planes.

For the foregoing reasons, we agree with appellants that Prinz fails to disclose a step of moving the at least one machining device in multiple planes as recited in claim 27. It follows that we cannot sustain the examiner's rejection of claim 27, or claims 28-30 depending therefrom, as being anticipated by Prinz. Inasmuch as claim 1 does not include this limitation and having found, supra, appellants' argument with respect to the "forming system" limitation unpersuasive, we shall sustain the rejection of claim 1, as

well as claims 5-8, 10, 11, 13-17, 23 and 25 which appellants have grouped therewith, as being anticipated by Prinz.

CONCLUSION

To summarize, rejection (1) is sustained; rejection (2) is sustained as to claims 1, 5-8, 10, 11 13-17, 23 and 25 and reversed as to claims 27-30; rejection (3) is reversed and rejection (4) is reversed. The examiner's decision is affirmed-in-part.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

NEAL E. ABRAMS	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
LAWRENCE J. STAAB	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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JENNIFER D. BAHR	)	
Administrative Patent Judge	)	

Appeal No. 2003-1275  
Application No. 09/443,456

Page 11

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